

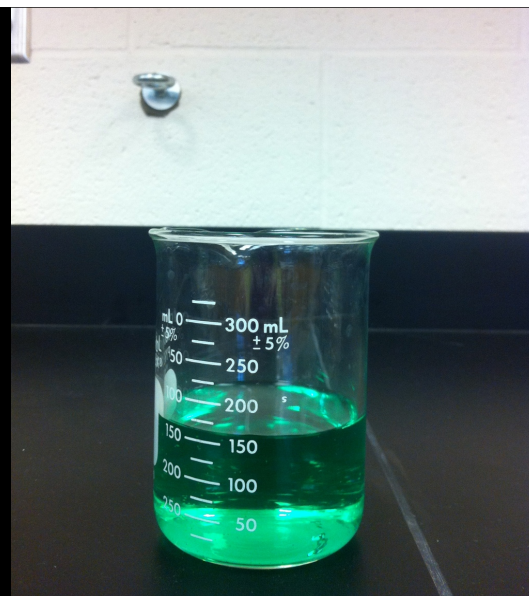
Lab 6: Measurement Lab

(Although your numbers may vary slightly, you should have the same number of read and estimated digits.

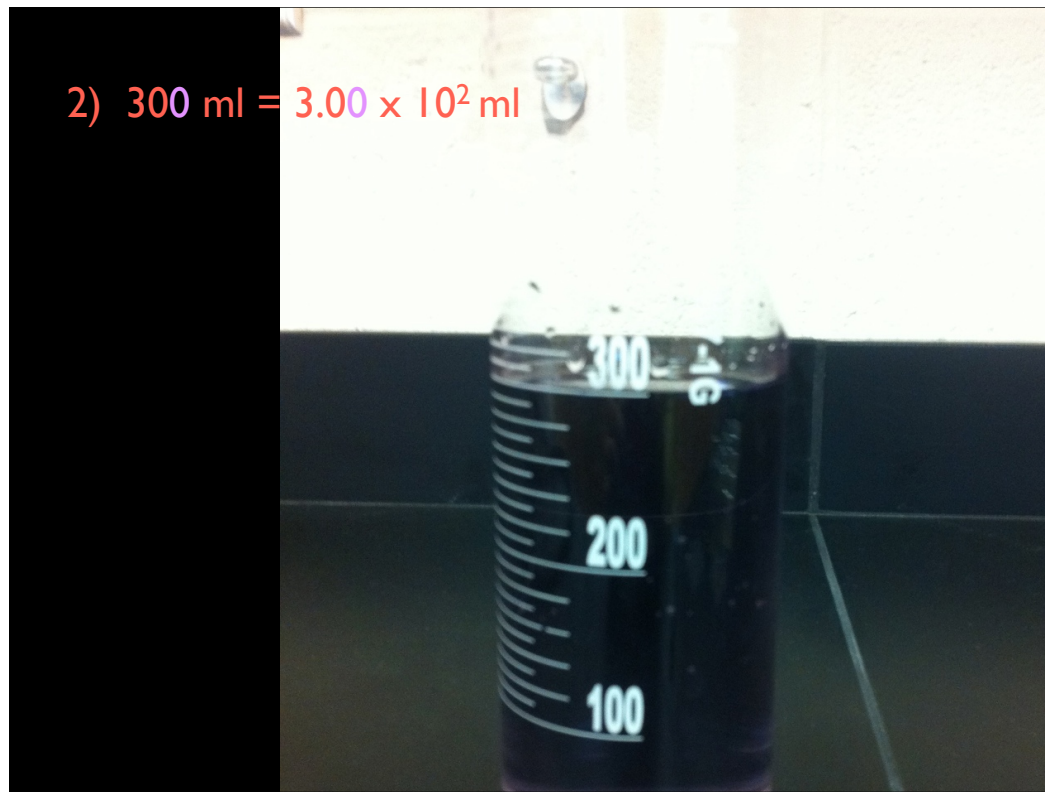
1) 160 ml

= 2 sig figs

(Purple numbers show estimated digits)



2) 300 ml = 3.00×10^2 ml



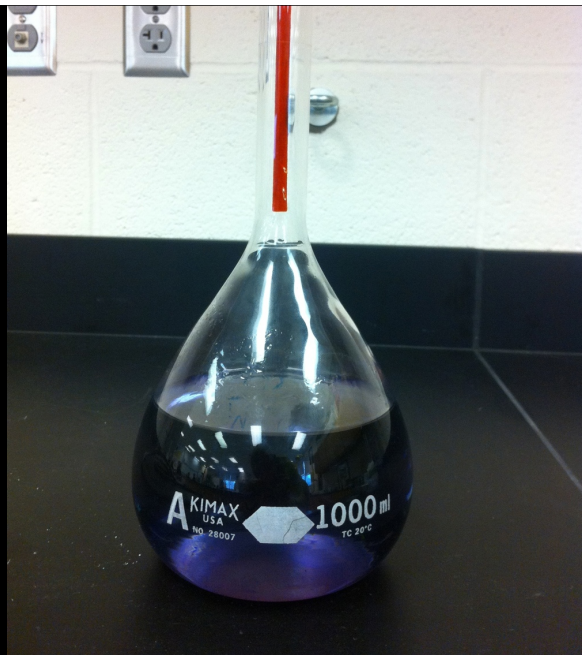
3) 500 ml
your known
digit, the thousands
place, is 0.
(0500)



4) 600 ml

your known
digit, the thousands
place, is 0.

(0600)



5.) Mass= 61.54g

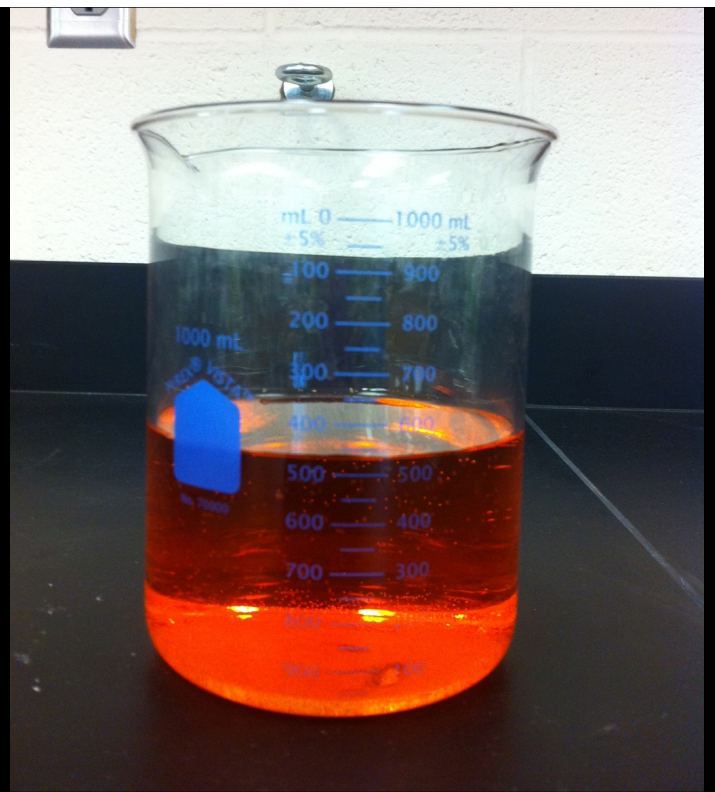
$$\text{Volume} = 10.30 \text{ cm} \times 5.15 \text{ cm} \times 1.20 \text{ cm} \\ = 63.654 \text{ cm}^3$$

Round volume to 3 sig figs
= 63.7 cm³

$$D = M/V$$

$$= 61.54\text{g}/63.7 \text{ cm}^3 \\ = 0.966 \text{ g/cm}^3$$

6) 530 ml



$$7) \text{ Mass} = 100.26 \text{ g}$$

$$\text{Volume} = 8.20 \text{ cm} \times 2.56 \text{ cm} \times 3.50 \text{ cm}$$

$$= 73.472 \text{ cm}^3$$

Round to 3 sig figs

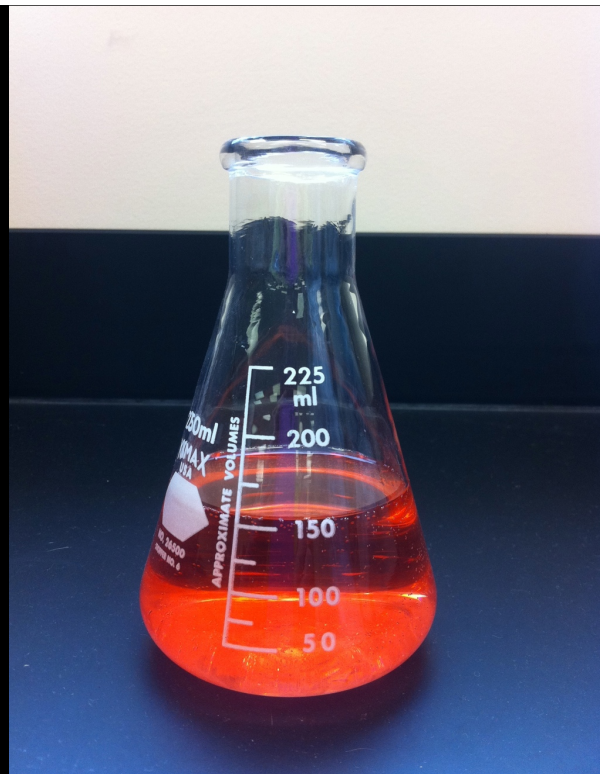
$$= 73.5 \text{ cm}^3$$

$$D = M/V$$

$$= 100.26 \text{ g} / 73.5 \text{ cm}^3$$

$$= 1.36 \text{ g/cm}^3$$

8) 160 ml

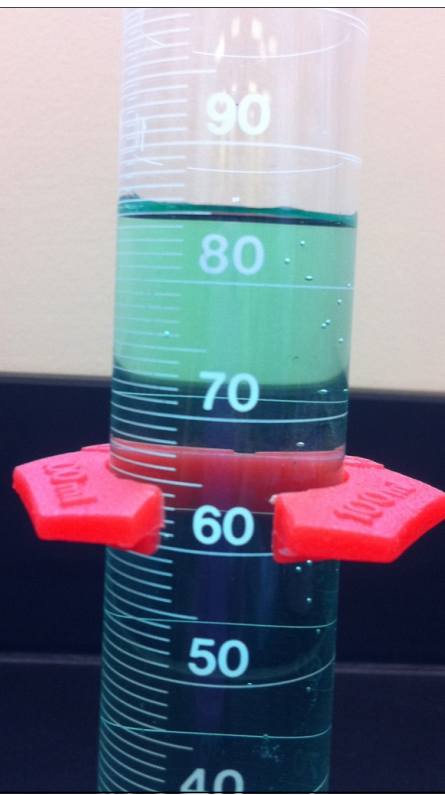


9) $M = 58.32 \text{ g}$

$$V = 6.55 \text{ cm} \times 2.45 \text{ cm} \times 3.85 \text{ cm}$$
$$= 61.8 \text{ cm}^3$$

$$D = 58.32 / 61.8 = 0.942 \text{ g/cm}^3$$

10) 85.0 ml



$$11) M = 98.99 \text{ g}$$

$$V = 7.75 \text{ cm} \times 5.25 \text{ cm} \times 2.51 \text{ cm}$$

$$= 102 \text{ cm}^3$$

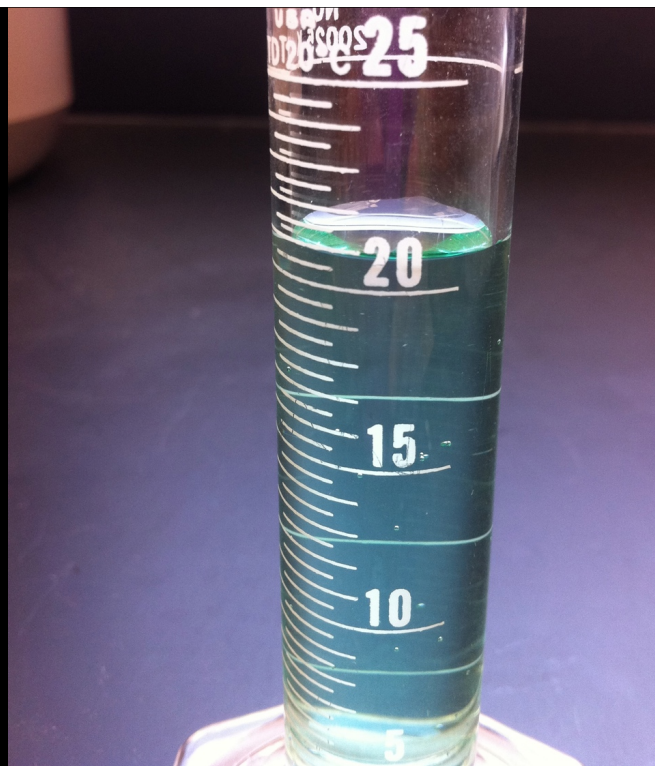
$$D = M/V$$

$$= 98.99/102 = 0.970 \text{ g/cm}^3$$

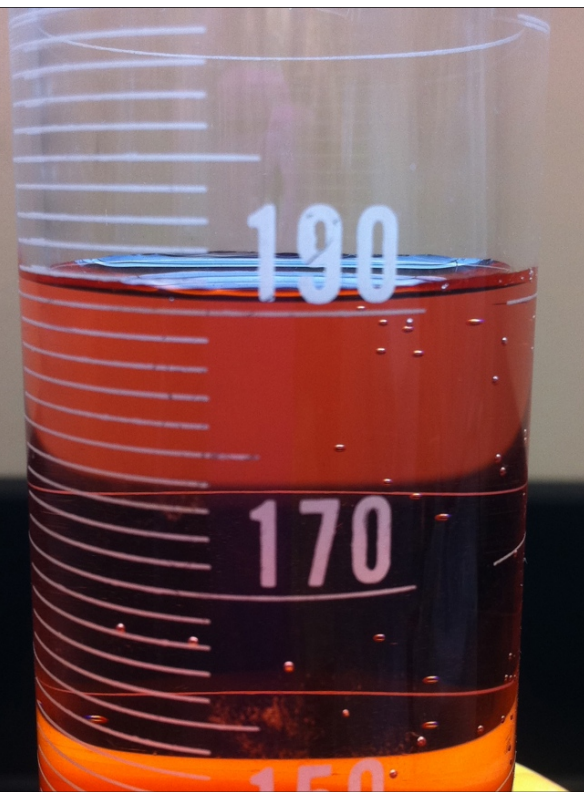
12) 6.7 ml



13) 20.9 ml



14) 192 ml

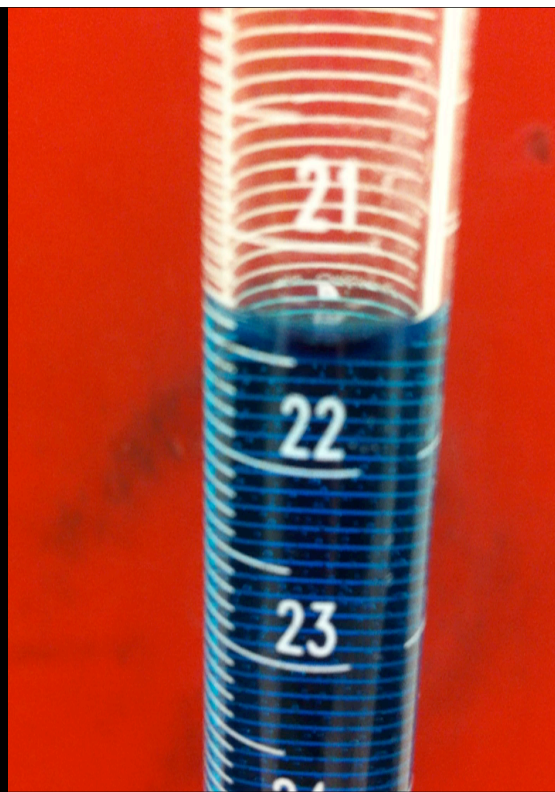


15) $M = 80.26 \text{ g}$

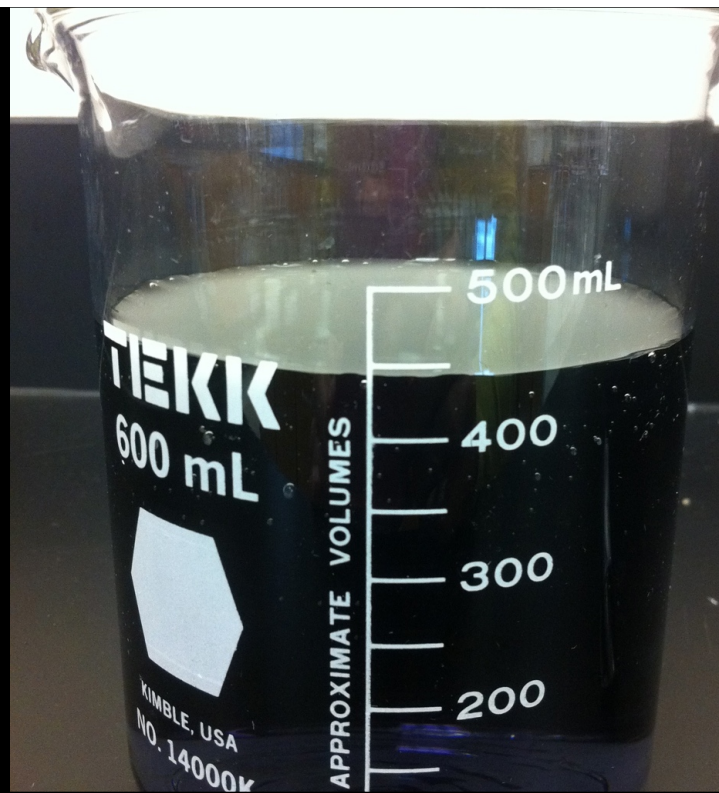
$$V = 6.45 \text{ cm} \times 1.20 \text{ cm} \times 7.11 \text{ cm}$$
$$= 55.0 \text{ cm}^3$$

$$D = M/V = 80.26/55.0$$
$$1.46 \text{ g/cm}^3$$

16) 21.45 ml



17) 440 ml



$$M = 78.97 \text{ g}$$

$$V = 7.70 \text{ cm} \times 8.28 \text{ cm} \times 1.21 \text{ cm}$$
$$= 77.1 \text{ cm}^3$$

$$D = 78.97 / 77.1 = 1.02 \text{ g/cm}^3$$